

## BIOGRAPHICAL SKETCH

NAME Wilton, Rosemarie	POSITION TITLE Molecular Biologist		
eRA COMMONS USER NAME			
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Illinois – Chicago University of Illinois – Chicago	Ph.D. B.S.	1993 1987	Biochemistry Biochemistry

**Positions and Honors:**

2004-present	Molecular Biologist Biosciences Division Argonne National Laboratory
1998-2004	Assistant Molecular Biologist Biosciences Division Argonne National Laboratory
1993-1998	Postdoctoral Appointee Center for Mechanistic Biology and Biotechnology Argonne National Laboratory

UIC Scholarship Association, 1986  
 Baumgarten-McGraw Hill Award, 1987  
 University of Illinois at Chicago, Graduate College Fellowship, 1987  
 University of Illinois at Chicago, Graduate College Fellowship, 1989  
 University of Illinois at Chicago, University Fellowship, 1990  
 University of Illinois at Chicago, Graduate College Fellowship, 1991  
 NIH Postdoctoral National Research Service Award GM16829, 1995-1997

**Selected peer-reviewed publications**

Wilkins-Stevens, P., **Raffen, R.**, Hanson, D.K., Deng, Y.-L., Berrios-Hammond, M., Westholm, F.A., Murphy, C., Eulitz, M., Wetzel, R., Solomon, A., Schiffer, M., and Stevens, F.J. 1995. Recombinant immunoglobulin variable domains generated from synthetic genes provide a system for *in vitro* characterization of light-chain amyloid proteins. *Protein Sci.* **4**: 421-432.

**Raffen, R.**, Wilkins Stevens, P., Schiffer, M., and Stevens, F.J. 1998. Reengineering immunoglobulin domain interactions by introduction of charged residues. *Protein Eng.* **11**: 303-309.

Pokkuluri, P.R., Huang, D.B., **Raffen, R.**, Cai, X., Johnson, G., Wilkins-Stevens, P., Stevens, F.J., and Schiffer, M. 1998. A domain flip as a result of a single amino-acid substitution. *Structure*. **6**: 1067-1073.

**Raffen, R.**, Dieckman, L.J., Szpunar, M., Wunschel, C., Pokkuluri, P.R., Dave, P., Wilkins Stevens, P., Schiffer, M., and Stevens, F.J. 1999. Physicochemical consequences of amino acid variations that contribute to fibril formation by immunoglobulin light chains. *Protein Sci.* **8**: 509-517.

Davis, D.P., **Raffen, R.**, Dul, J.L., Vogen, S., Williamson, E.K., Stevens, F.J., and Argon, Y. 2000. Inhibition of amyloid fiber assembly by both BiP and its target peptide. *Immunity* **13**: 433-442.

Kim Y.S., Cape S.P., Chi, E., **Raffen R.**, Wilkins-Stevens P., Stevens F.J., Manning M.C., Randolph T.W., Solomon A., Carpenter J.F. 2001. Counteracting effects of renal solutes on amyloid formation by immunoglobulin light chains. *J. Biol. Chem.* **276**: 1626-1633.

Lin, Y-M., **Raffen, R.**, Zhou, Y., Flavin, M.T., and Stevens, F.J. 2001. Amyloid fibril formation in microwell plates for screening of inhibitors. *Amyloid* **8**: 182-193.

Davis, D.P., Gallo, G., Vogen, S.M., Dul, J.L., Sciarretta, K.L., Kumar, A., **Raffen, R.**, Stevens, F.J., and Argon, Y. 2001. Both the environment and somatic mutations govern the aggregation pathway of pathogenic immunoglobulin light chain. *J. Mol. Biol.* **313**: 1021-1034.

Pokkuluri, P.R., Gu, M., Cai, X., **Raffen, R.**, Stevens, F.J., and Schiffer, M. 2002. Factors contributing to decreased protein stability when aspartic acid residues are in  $\beta$ -sheet regions. *Protein Sci.* **11**: 1687-1694.

Stols, L., Gu, M-Y., Dieckman, L., **Raffen, R.**, Collart, F.R., and Donnelly, M.I. 2002. A new vector for high throughput, ligation independent cloning encoding a TEV protease cleavage site. *Protein Expr. Purif.* **25**: 8-15

Pokkuluri, P.R., **Raffen, R.**, Dieckman, L., Boogaard, C., Stevens, F.J., and Schiffer, M. 2002. Increasing protein stability by polar surface residues: Domain-wide consequences of interactions within a loop. *Biophys. J.* **82**: 391-398.

Wilton, R., Yousef, M.A., Saxena, P., Szpunar, M., and Stevens, F.J. 2006. Expression and purification of recombinant human receptor for advanced glycation endproducts (RAGE) in Escherichia coli. *Protein Expr. Purif.* **47**: 25-35.

Chen Y., Borowicz S., Fackenthal J., Collart F.R., Myatt E., Moy S., Babnigg G., Wilton R., Boernke W.E., Schiffer M., Stevens F.J., Olopade O.I. 2006. Primary structure-based function characterization of BRCT domain replicates in BRCA1. *Biochem. Biophys. Res. Commun.* **345**:188-96.